

U.S. Patent Application Serial No. 10/543,185  
Amendment filed August 10, 2009  
Reply to OA dated March 12, 2009

**AMENDMENTS TO THE SPECIFICATION:**

**Amend the paragraph beginning at page 5, line 1, as follows:**

Several attempts have therefore been made to support and stabilize such surface-coated semiconductor ultrafine particles in a solid matrix. There is, for example, a report concerning a method for fixing such particles in an organic polymer (Bawendi, et al., *Advanced Materials*, vol. 12, p. [[1103]] 1102 (2000)). However, polymers used as a matrix have low levels of light resistance, heat resistance, and other properties, and gradually permit the passage of water and oxygen. The resulting drawback is a gradual degradation of the ultrafine particles thus fixed. In addition, in a mixture of ultrafine particles as an inorganic material and a polymer as an organic material, the ultrafine particles are apt to aggregate if the dispersion concentration of the ultrafine particles is high, and therefore the fluorescent material tends to have inferior characteristics as a light-emitting material.

**Amend the paragraph beginning at page 21, line 5, as follows:**

In this specification, the "fluorescence quantum yield of the semiconductor ultrafine particles in fluorescent glass" denotes a ratio  $(\Phi_A / \Phi_{PL}) (\Phi_{PL} / \Phi_A)$  of the number of photons ( $\Phi_{PL}$ ) emitted as photoluminescence from the ultrafine particles in the fluorescent glass to the number of photons ( $\Phi_A$ ) of excitation light absorbed in the semiconductor ultrafine particles in the fluorescent glass. More specifically,

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a glass cell containing a dye molecule-containing solution with known absorbance and fluorescence quantum yield and a glass of a measurement target having the same thickness as the glass cell are used, and the absorbance and fluorescence quantum yield are compared between the dye molecule-containing solution and the measurement target, thereby determining the ratio.